

## ONTOGENETIC COMMONALITY OF THE URINARY AND REPRODUCTIVE SYSTEMS IN WOMEN

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### Abstract

The specificity of the female organism is due to the ontogenetic commonality of the urinary and reproductive systems and their anatomical-functional relationship. The data obtained as a result of our epidemiological study indicate a high prevalence of urinary disorders in women in menopause. Urinary incontinence was reported by 58.7%, urgency by 41.67%, pollakiuria and nocturia by 19.7% and 27.6%, respectively. Early reversal and initiation of hormone replacement therapy from the onset of the first symptoms can prevent progressive atrophy of the structures of the urogenital tract and prevent the development of severe forms of urinary disturbance.

**Keywords:** woman, age, bladder, treatment, dysuria, urinary incontinence, pollakiuria, nocturia.

### Introduction

Disorders of the lower urinary tract and urinary disorders cause severe physical and moral suffering due to deep mental trauma, sexual conflict, the development of neurosis and neurasthenia [1, 2, 6, 8, 14]. The pathogenesis of bladder dysfunctions is complex, since the latter affect not only the bladder, but also other organs and systems [3, 4, 5, 7, 11, 13, 17].

In recent years, a large number of works have appeared indicating an increase in the number of sick women with disorders of the act of urination in the absence of pathological changes in urine tests [9, 12, 15, 20, 23, 24]. This feature served as a reason for many researchers to consider the cause of dysuria as neuro-endocrine disorders in the body of women, circulatory disorders in the pelvic organs and various changes in the psyche of patients [8, 16, 18, 19, 21, 22]. Other authors considered dysuria as a manifestation of inflammatory processes of the bladder and urethra. Still others attributed dysuria to functional disorders of the lower urinary tract [1, 11, 15, 20, 23]. Loss of control over urination is a silent crippling force that disrupts quality of life and can be an unpleasant surprise for health authorities in the near future. The frequency of seeking medical attention for urinary incontinence is quite low. Urinary incontinence is accompanied by the development of infectious diseases of the urinary tract, leads to a decrease in working capacity, social and mental maladjustment [9, 11, 13, 20, 21, 23].

**The purpose of the study** is to assess the role of functional and anatomical components in the development of urinary disorders in women

### Research Materials And Methods

To solve the tasks, 80 patients who are on outpatient or inpatient treatment in the urology department of the clinic of the Andijan State Medical Institute from 2022 to 2025 were examined. aged 32 to 75 years. To perform echo urodynamic studies, the URO-COLOR-VIDEO 2100 system was used, combined with the Aloka-SSD 256 ultrasound apparatus (Japan). Transrectal

(transvaginal) ultrasound imaging was carried out using linear and convex sensors with a frequency of 5 MHz. Segmental video magnification and data processing is carried out using the Micrograf Designer computer program, which allows measuring the diameter of the urethra up to 0.01 cm. When evaluating the obtained data using the Student's t-test (confidence factor t).

### Research Results

80 patients with urinary incontinence complaints were examined. The average age of patients ranged from 45 to 67 years. During the examination on the gynecological chair and history collection, 15 (50%) patients had urinary stress incontinence (SNM), 10 (33.3%) had urgent urinary incontinence, and 5 (16.6%) had a combination of episodes of urinary stress incontinence and urgent urinary incontinence.

We have evaluated the ratio of different forms of urinary incontinence at different periods of climacteria. Among various urinary disorders in perimenopausal patients, 20% are stress urinary incontinence, 33.3% are urgent, 26% are combined. In the group of patients with postmenopausal duration of 1-5 years, the proportion of urgent urinary incontinence is 12.5%, the stress form is 45.83%, and the combined form is 2.08%. In the group of patients with postmenopausal duration of 6-10 years, 13.7% is an urgent form, 48.27% is a stressful form. In the group of patients with postmenopausal duration of 11-15 years, the ratio of urgent and stress forms of urinary incontinence is 42.86% and 28.57%, respectively. Among patients with postmenopausal duration of 16-20 years, the ratio of stress, urgent and combined forms of urinary incontinence is 30%; 40%; 10%, respectively. With the duration of postmenopause over 20 years, the urgent form prevails, which corresponds to the stressful and combined forms as 71.4%, 7.14%, 7.14%, respectively.

The results of urodynamic studies in patients with various forms of urinary incontinence highlighted their main functional criteria. It should be noted that patients with a combined form of urinary incontinence were older, with a lower maximum cystometric volume, with a greater maximum urethral pressure, with a lower maximum urine flow rate, with greater intravesical and detrusor pressures and detrusor pressure fluctuations. The older age of patients with urgent urinary incontinence indicates the influence of aging processes in the body in general and the lower urinary tract in particular. All this, in turn, further disrupts the function of the lower urinary tract, determining an increase in the frequency of imperative urinary disorders.

It is noteworthy that with an increase in the severity of urogenital disorders, the tone of the detrusor noticeably decreases simultaneously with an increase in the maximum capacity of the bladder. This confirms the previously obtained data on the effect of estrogen deficiency on the bladder muscle. In this case, we are not talking about patients with urgent incontinence, because with instability of the detrusor, its tone is not evaluated.

### Conclusion

The specificity of the female organism is due to the ontogenetic commonality of the urinary and reproductive systems and their anatomical-functional relationship. The data obtained as a result of our epidemiological study indicate a high prevalence of urinary disorders in women in menopause. Urinary incontinence was reported by 58.7%, urgency by 41.67%, pollakiuria and nocturia by 19.7% and 27.6%, respectively. Despite this, only 19.35% of women sought help for various urinary

disorders from a doctor. Perhaps early reversal and initiation of hormone replacement therapy from the onset of the first symptoms could prevent progressive atrophy of the structures of the urogenital tract and prevent the development of severe forms of urinary disturbance.

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